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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,283	01/22/2004	Bear Hsiung	MR1957-839	3173

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EXAMINER	
BRINEY III, WALTER F	

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/761,283	HSIUNG, BEAR	
	Examiner	Art Unit	
	Walter F. Briney III	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 1, 2, 5 and 10 are objected to because of the following informalities:

- Claim 1, line 6: "a internal diameter" should be "[[an]] an internal diameter"
- Claim 2 is missing a period at the end of the claim
- Claim 5, line 6: "a internal diameter" should be "[[an]] an internal diameter"
- Claim 10, line 6: "a internal diameter" should be "[[an]] an internal diameter"
- Claim 10, line 8: "a binding coil surrounded the holder" should be "a binding coil ~~surrounded~~ surrounding the holder"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. **Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 10 recites the limitation "the voice coil" in lines 7 and 11. There is a confusion as to which voice coil this "the voice coil" refers to because two indefinite voice coils were set forth in lines 3 and 4. For the purposes of this action, it is assumed that the use of the indefinite article "a" in line 4 is a typo, and is replaced with the definite article "the."

Claims 11-13 are rejected for the same reasons as claim 10 based on their dependence therefrom.

Claims 1-9 are similarly rejected, as independent claims 1 and 5 both recite two indefinite voice coils, while only one is depicted and supported in the written description.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunio et al. (Japanese Patent Publication 08-023597, 23 January 1996) in view of Junichi (Japanese Patent Publication 2000-261874).**

Claim 1 is limited to "a luminescence audio unit structure." Kunio describes a speaker with an electroluminescent emitting light unit layer. In one embodiment Kunio describes an electroluminescent-cell layer 30 which is part of a diaphragm 25. The cell layer emits light in accordance with a reproduction of a tone by the speaker or when a drive voltage is applied. As seen in figure 1, the speaker 20, which corresponds to a luminescence audio unit structure, comprises "a holder" 27, "an expanding opening" that is clearly in front of the holder, "a magnetic element" 23 and "a voice coil" 24. Figure 1 also depicts "a vibrating membrane" 26 that is clearly inside the opening and covering the voice coil 24. The speaker of figure 1 further includes "a membrane tray" 25 that is inside the opening and has an internal diameter adhered to the voice coil 24. Figure 3

depicts "an electroluminescence piece" 30 that is stuck to the membrane tray. See paragraph [0011] of the machine translation. However, the machine translation of Kunio indicates that the layer 30 can be placed on the center cap 26, i.e. the "vibrating membrane." See paragraphs [0001] and [0019]. While the electroluminescence layer 30 of Kunio is indicated to emit light with a driving voltage, the specification does not specify that the driving voltage is the same as the voltage that causes the speaker to output an audible signal. However, even though Kunio does not anticipate an electroluminescence piece connected to the voice coil, this deficiency is overcome by an obvious modification.

In particular, the above noted lack of disclosure regarding how to drive the electroluminescence layer 30 at the same time as the speaker is driven inexorably leads one of ordinary skill in the art to ask how to accomplish it. In solution, one of ordinary skill in the art at the time of the invention would inherently be motivated to use the prior art solution of Junichi, who discloses a speaker and its manufacture. As seen therein, a speaker 10 is provided with a voice coil 25 that receives an alternating signal 35, which corresponds to the signal provided by the pachinko controller of Kunio to speaker 20. The signal 35 is inductively coupled to a power-generating coil 32 stored below the dust cap 12 (i.e. center cap 26 of Kunio). The power-generating coil 32 provides power to the electroluminescence elements 33a and 33b (i.e. electroluminescence layer 30 of Kunio). In this way, the electroluminescence elements are connected to the voice coil.

It would have been obvious to one of ordinary skill in the art at the time of the invention to couple an electroluminescence layer to a voice coil in the manner taught by

Junichi for the purpose of providing simultaneous driving of both an audio and optical source while eliminating separate wiring for the electroluminescence layer.

Claim 2 is limited to "a luminescence audio unit structure as in claim 1," as covered by Kunio in view of Junichi. As seen in figure 3 of Kunio, the electroluminescence layer 30 is shaped as an annular ring, which is "a drawing." Therefore, Kunio in view of Junichi makes obvious all limitations of the claim.

Claim 3 is limited to "a luminescence audio unit structure as in claim 1," as covered by Kunio in view of Junichi. As shown in the rejection of claim 1, it would have been obvious to connect the electroluminescence layer 30 of Kunio to the voice coil thereof using "a transformer," such as transformer 32 as taught by Junichi. Therefore, Kunio in view of Junichi makes obvious all limitations of the claim.

Claim 4 is limited to "a luminescence audio unit structure as in claim 1," as covered by Kunio in view of Junichi. As shown in the rejection of claim 1, the transformer 32 of Junichi is housed inside the vibrating membrane 12, which corresponds to the center cap 26 of Kunio. Therefore, Kunio in view of Junichi makes obvious all limitations of the claim.

Claims 5, 6, 8 and 9 are limited to "a luminescence audio unit structure." These claims respectively recite essentially the same structure as claims 1-4, the only difference being that the electroluminescence piece of these claims is stuck on the membrane tray. However, this is disclosed by Kunio, who in paragraphs [0001], [0011] and [0019] indicates that the electroluminescence layer 30 is stuck on the diaphragm

25, which corresponds to the membrane tray as recited. Therefore, Kunio in view of Junichi makes obvious all limitations of the claims.

Claim 7 is limited to "a luminescence audio unit structure as in claim 5," as covered by Kunio in view of Junichi. Figure 3 of Kunio indicates that the electroluminescence layer 30 is stuck to "parts...of the membrane tray." Therefore, Kunio in view of Junichi makes obvious all limitations of the claim.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

Claims 10-13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 10-13 are limited to "a luminescence audio unit structure" that is essentially the same as that recited in claims 1 and 5, the difference being that the electroluminescence piece is stuck on a plane vibrating membrane that is stuck on a binding coil surrounding the holder. However, the cited prior art fails to teach a plane vibrating membrane stuck to a binding coil surrounding the holder, let alone an electroluminescence piece stuck thereto. Thus, claims 10-13 would be allowable over the cited prior art if rewritten to overcome all the rejections set forth under 35 U.S.C. § 112, second paragraph.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WFB

SINH TRAN
SUPERVISORY PATENT EXAMINER